United Nations ST/SG/AC.10/C.3/2018/39

Secretariat

Distr.: General
4 April 2018

Original: English

Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods

Fifty-third session
Geneva, 25 June-4 July 2018
Item 7 of the provisional agenda
Global harmonization of transport of dangerous goods regulations with the Model Regulations

Amendments to 7.1.5.4.5

Transmitted by the expert from the Netherlands*

Introduction

1. At its fiftieth session in December 2016, the Sub-Committee adopted a new section 7.1.5 applicable to the transport of self-reactive substances of Division 4.1, organic peroxides of Division 5.2 and substances stabilized by temperature control. These provisions were included in the twentieth edition of the Model Regulations.

2. The implementation of these provisions into the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) was discussed at the 103rd session of the Working Party on the Transport of Dangerous Goods in November 2017. The Working Party *"noted that the measures proposed for subparagraphs (c), (d) and (e) of 7.1.7.4.5 were meaningless without thermal insulation"* (paragraph 29 ECE/TRANS/WP15/239). The Working Party therefore amended the provisions by requiring thermal insulation for 7.1.7.4.5 (c), (d) and (e).

3. The Working Party invited the Netherlands to point this amendment out to the Sub-Committee in order to correct the Model Regulations, if necessary.

4. In order to promote safety and multimodal harmonization, the expert of the Netherlands proposes to amend subparagraph 7.1.5.4.5 of the Model Regulations to align it with subparagraph 7.1.5.4.5 of the ADR as adopted at the 103rd session of the Working Party. This includes adding requirements for thermal insulation in section 7.1.5.4.5 (c), (d)

* In accordance with the programme of work of the Sub-Committee for 2017–2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, para. 14).

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and (e). In addition, it is proposed that subparagraph 7.1.5.4.5 be further amended to include the editorial clarifications that the Working Party made to the text.

Proposal

5. Amend subparagraph 7.1.5.4.5 as shown below with the proposed additions in **bold** and deletions in ~~strikethrough~~.

"7.1.5.4.5 Suitable methods for preventing the control temperature being exceeded are, in order of increasing control capability:

(a) Thermal insulation; provided that the initial temperature of the substance(s) to be transported is sufficiently below the control temperature;

(b) Thermal insulation with coolant system; provided that:

(i) An adequate quantity of **non-flammable** coolant (e.g. liquid nitrogen or solid carbon dioxide), allowing a reasonable margin for delay, is carried **or a means of replenishment is assured**;

(ii) Liquid oxygen or air is not used as coolant;

(iii) There is a uniform cooling effect even when most of the coolant has been consumed; and

(iv) The need to ventilate the unit before entering is clearly indicated by a warning on the door(s) of the unit;

(c) **Thermal insulation and** ~~S~~single mechanical refrigeration; provided that for substance(s) to be transported with a flash point lower than the sum of the emergency temperature plus 5 °C explosion-proof electrical fittings are used within the cooling compartment to prevent ignition of flammable vapours **from the substances**;

(d) **Thermal insulation and** ~~C~~combined mechanical refrigeration system with coolant system; provided that:

(i) The two systems are independent of one another;

(ii) The provisions in (b) and (c) are complied with;

(e) **Thermal insulation and** ~~D~~dual mechanical refrigeration system; provided that:

(i) Apart from the integral power supply unit, the two systems are independent of one another;

(ii) Each system alone is capable of maintaining adequate temperature control; and

(iii) For substance(s) to be transported with a flash point lower than the sum of the emergency temperature plus 5 °C explosion-proof electrical fittings are used within the cooling compartment to prevent ignition of flammable vapours **from the substances**."